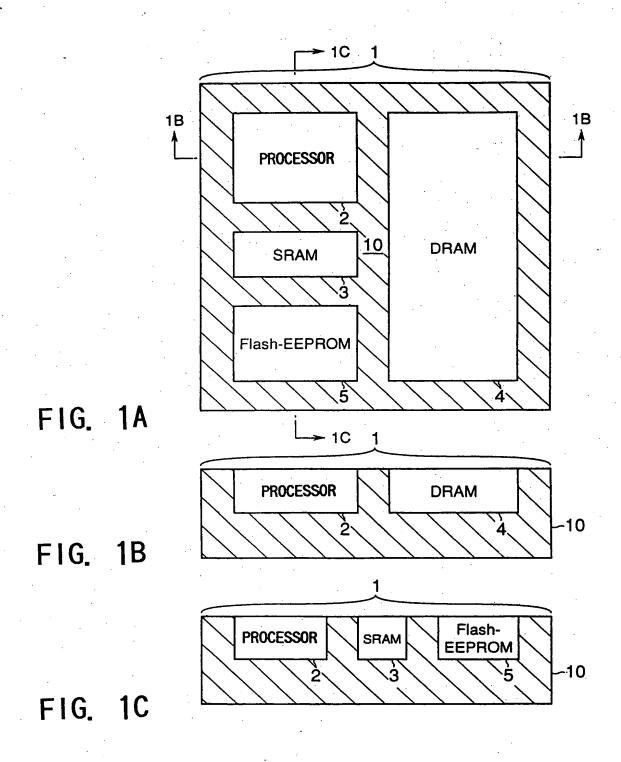
Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 1 of 52



Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 2 of 52

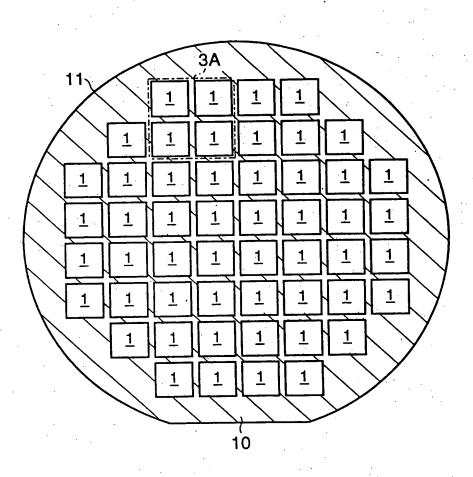
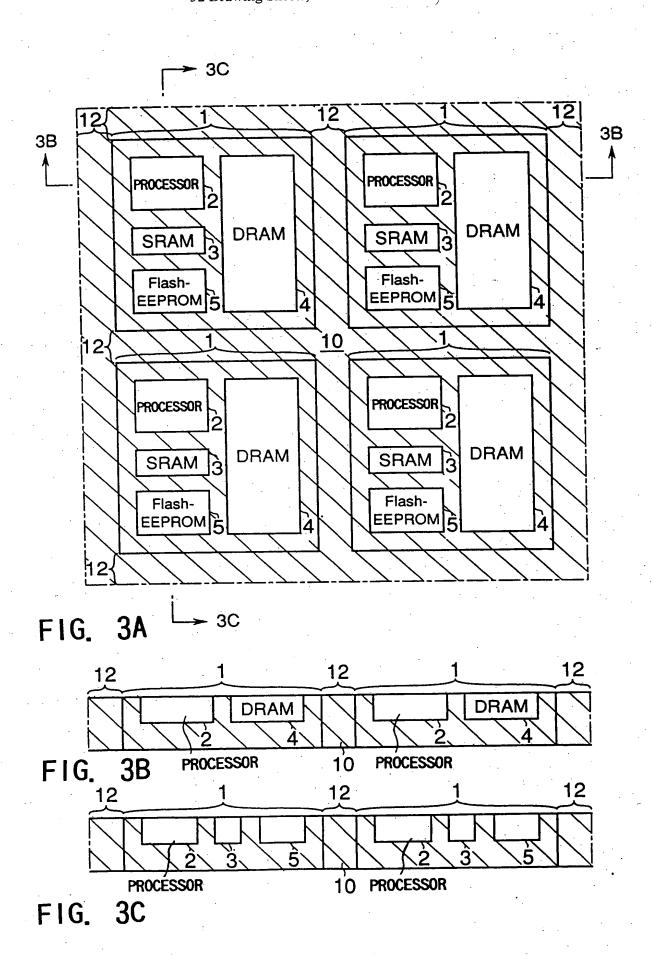


FIG. 2

Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 3 of 52



Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 4 of 52

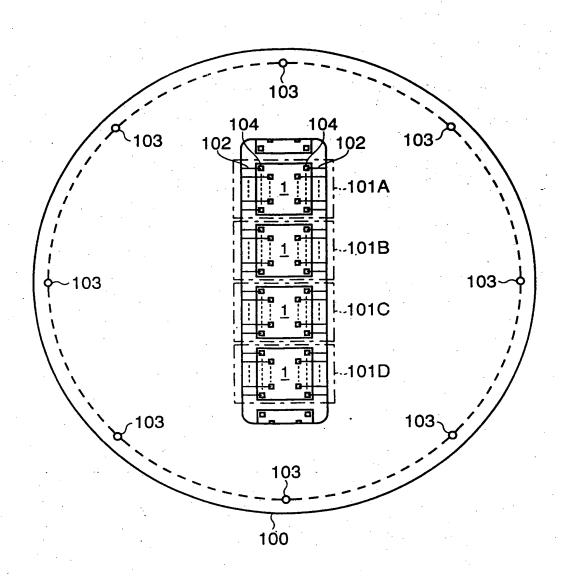


FIG. 4

Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 5 of 52

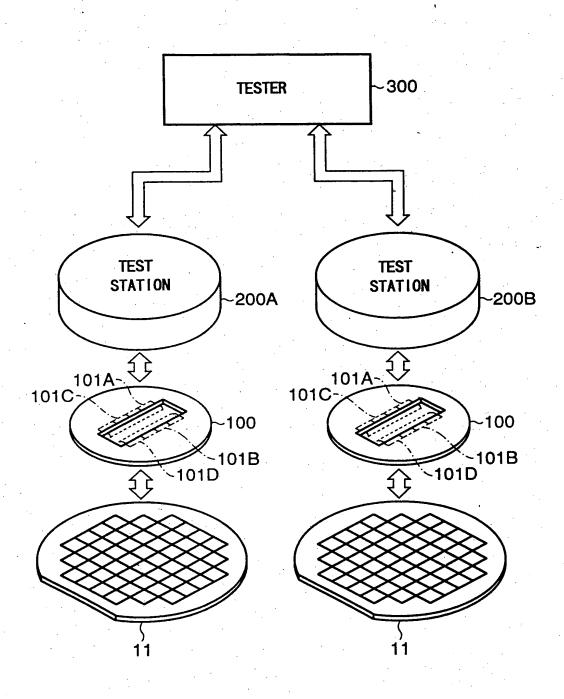
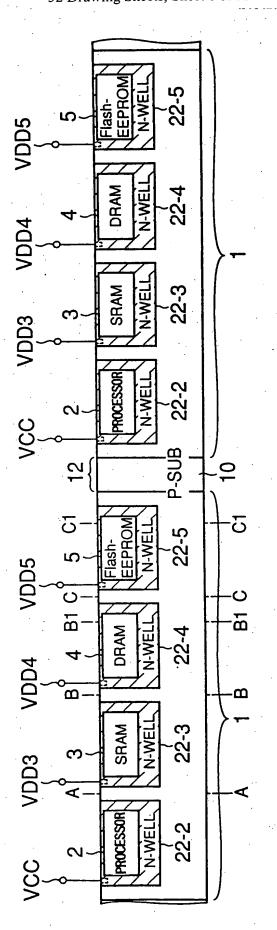


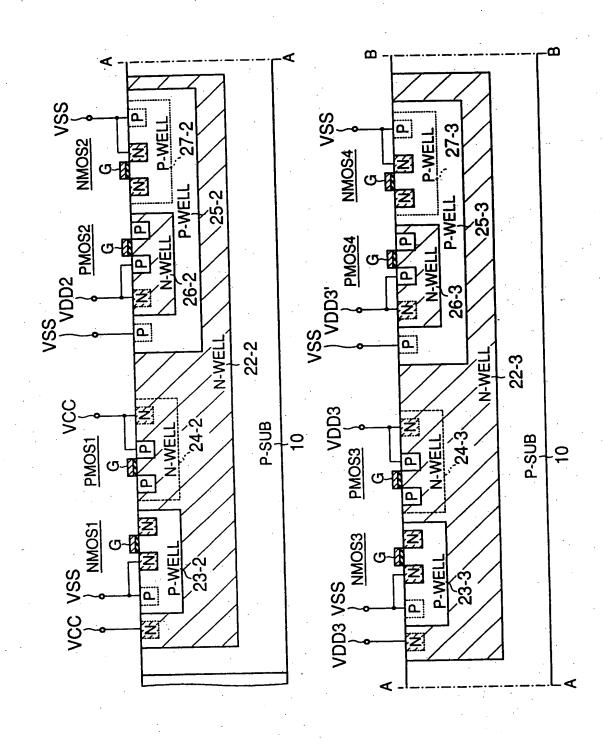
FIG. 5

Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 6 of 52



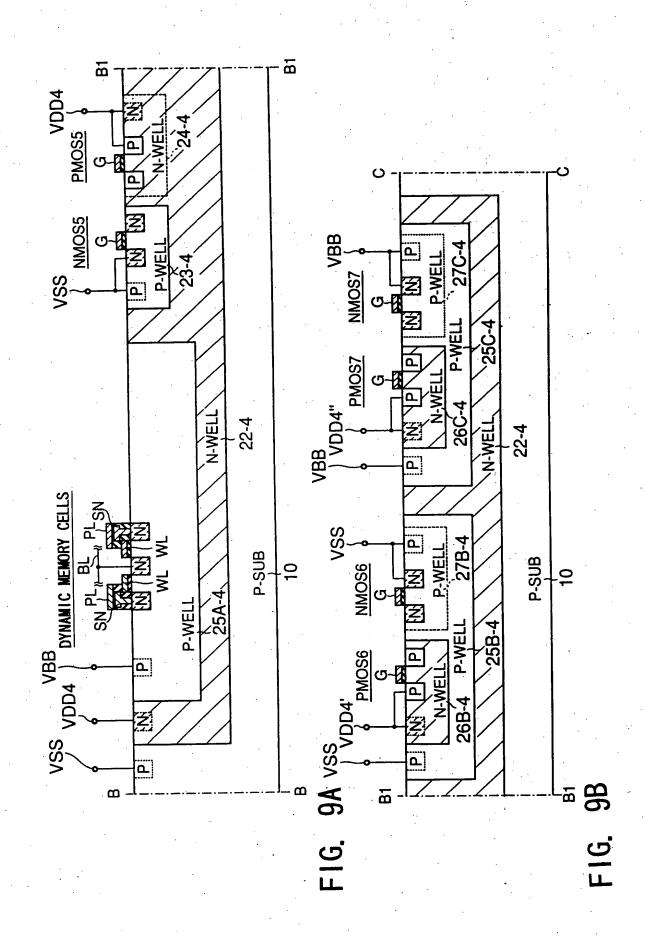
F1G. 6

Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 7 of 52

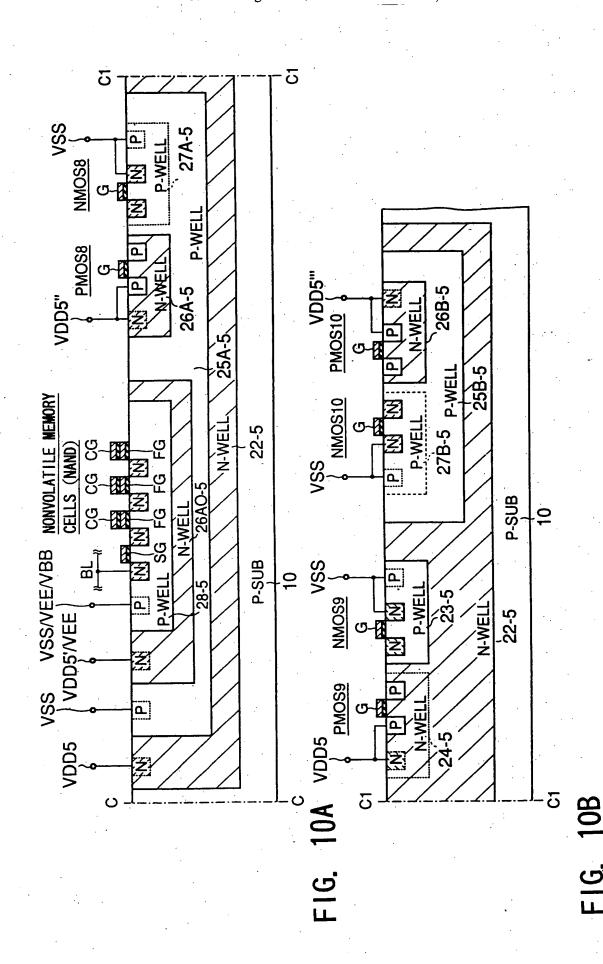


F1G. 8

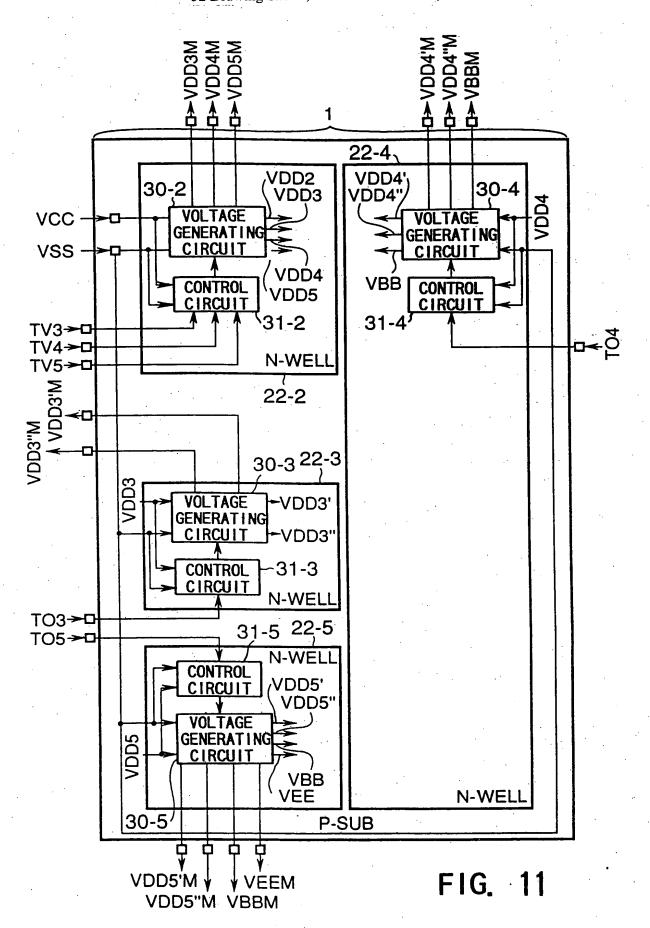
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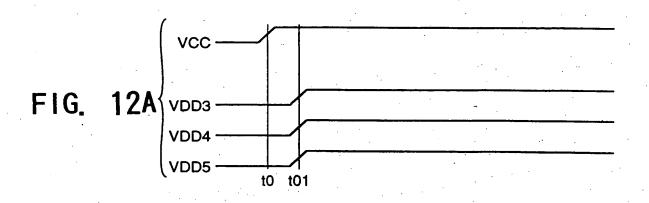
Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 9 of 52

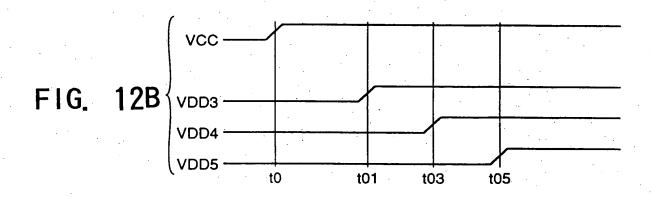


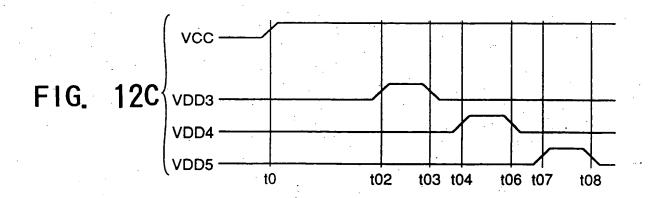
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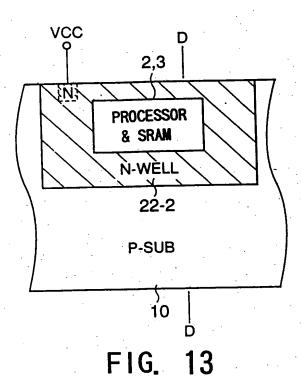
Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 11 of 52







Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 12 of 52



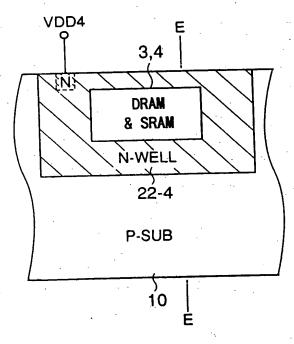
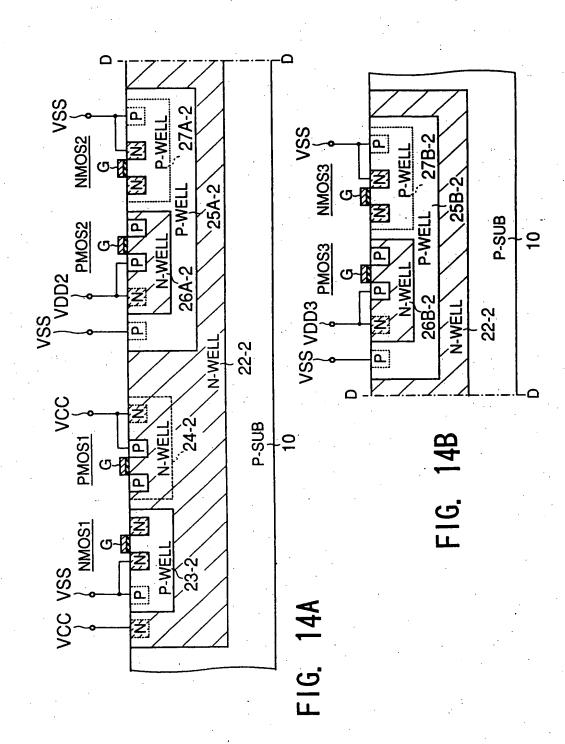
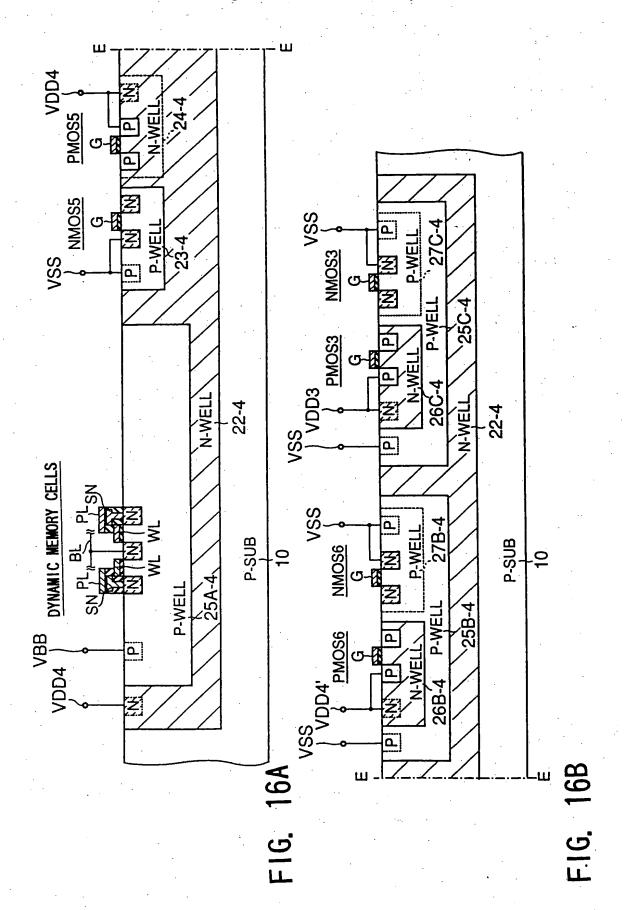


FIG. 15

Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 13 of 52



Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 14 of 52



Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 15 of 52

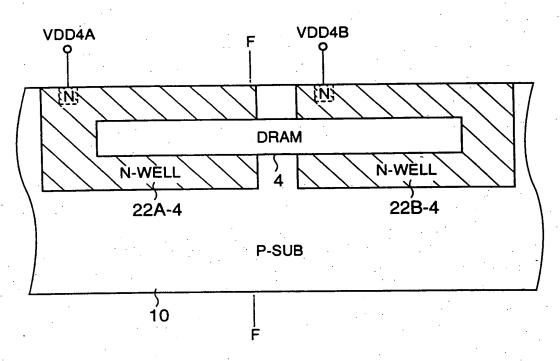


FIG. 17

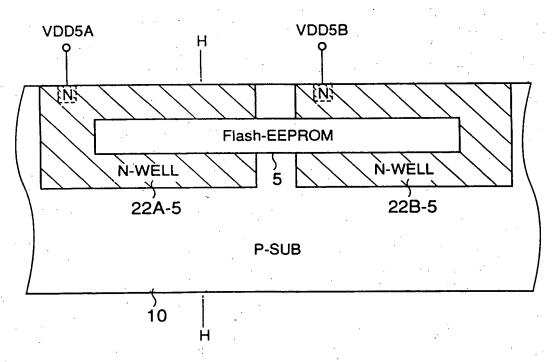


FIG. 19

Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 16 of 52

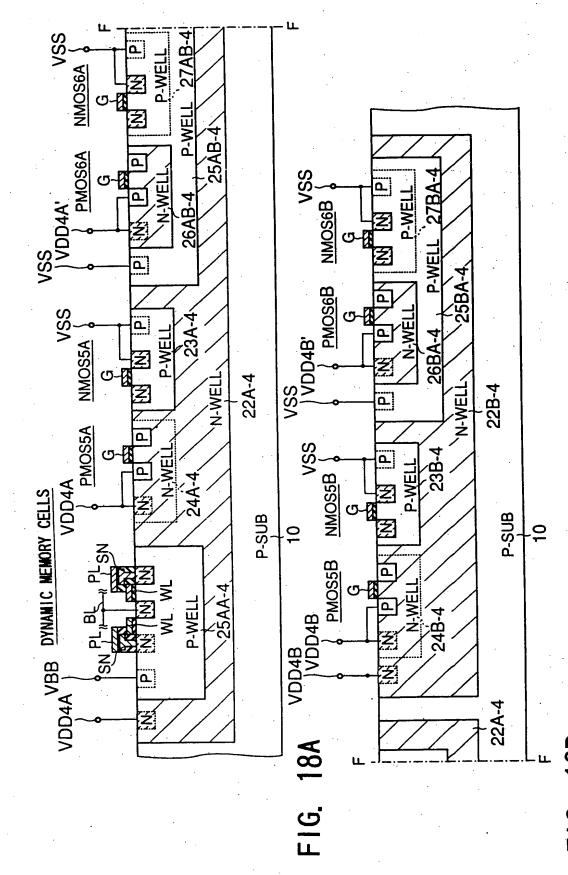
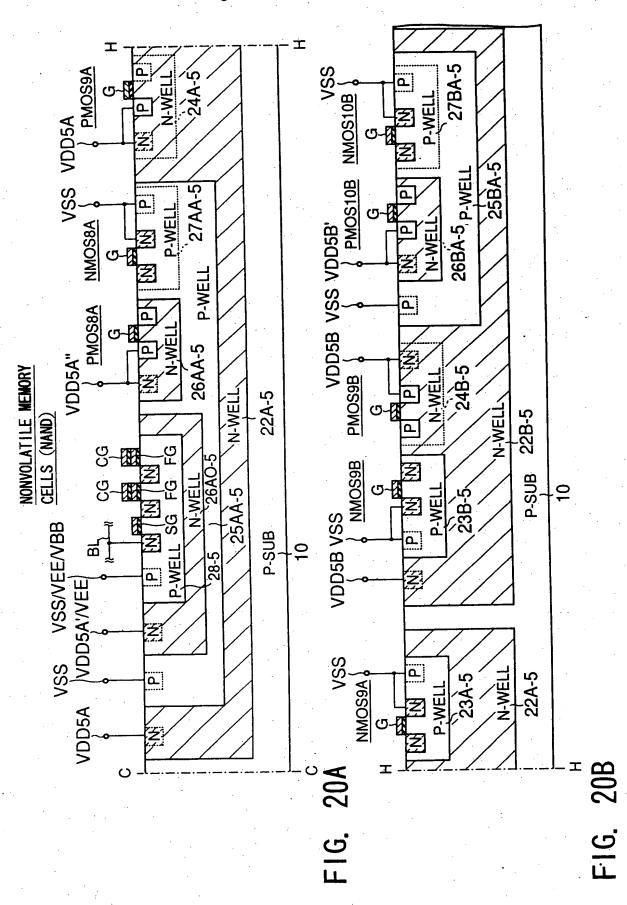
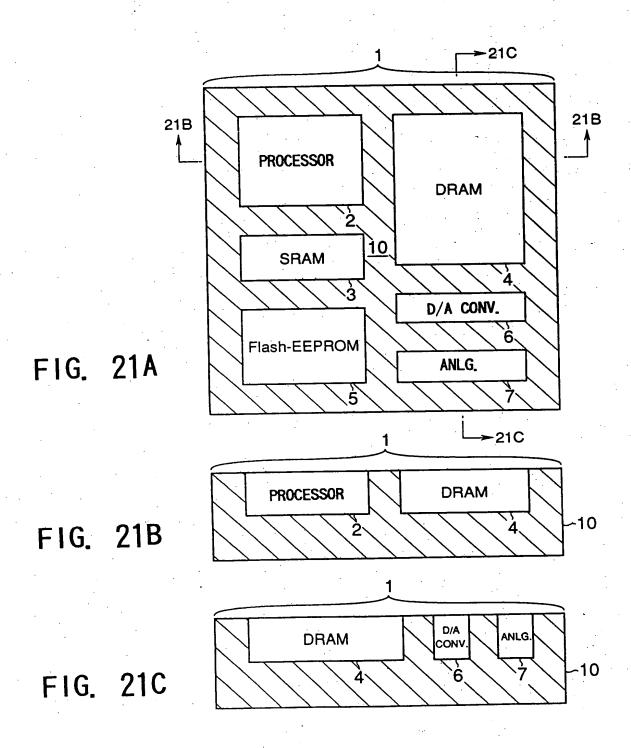


FIG. 18B

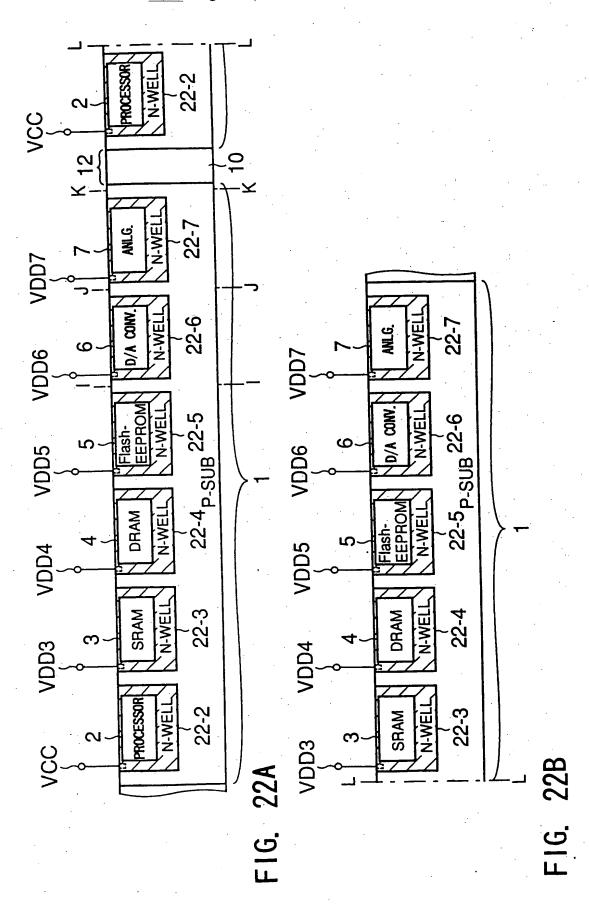
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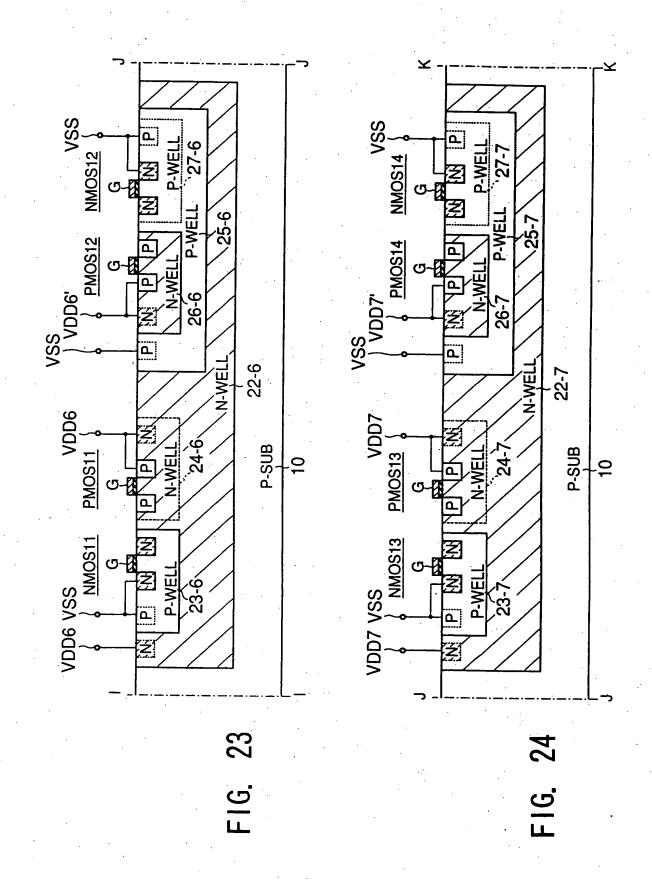
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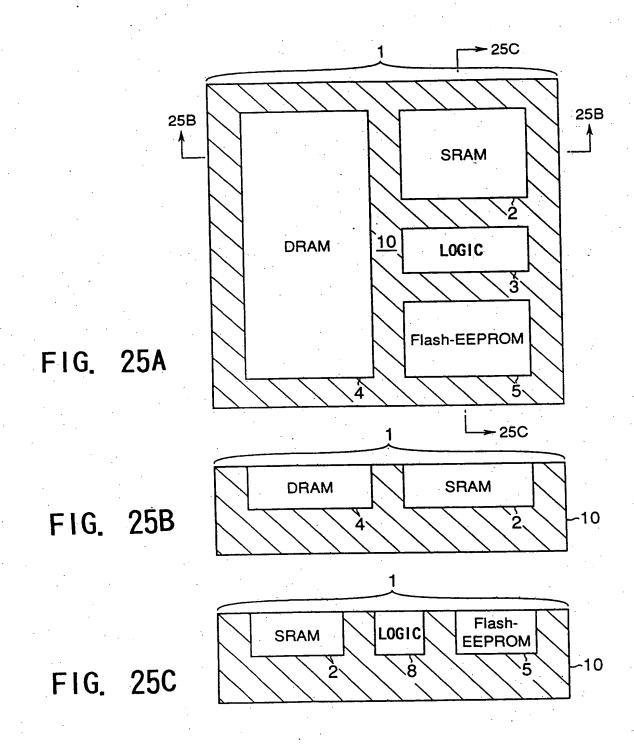
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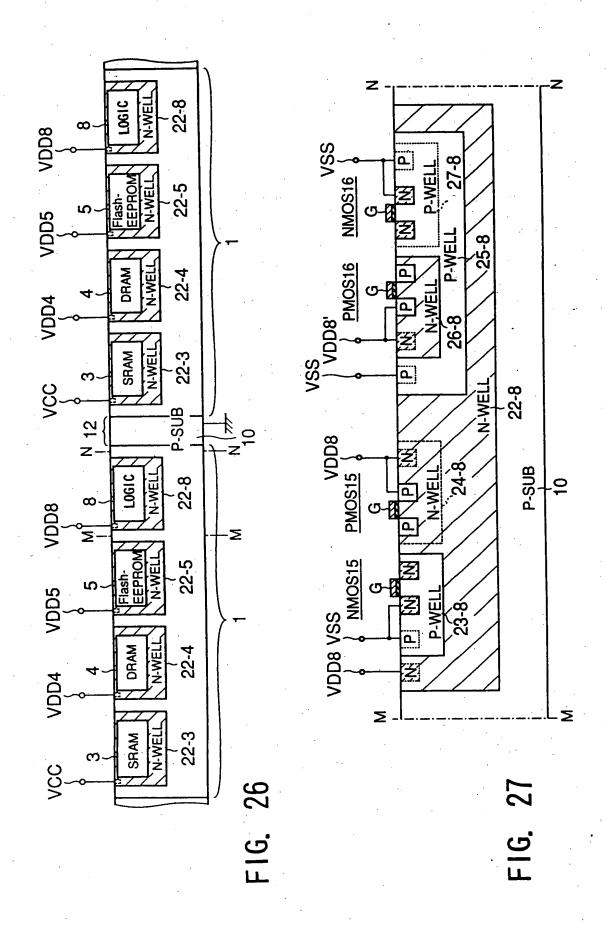
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Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 21 of 52



Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 22 of 52



Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 23 of 52

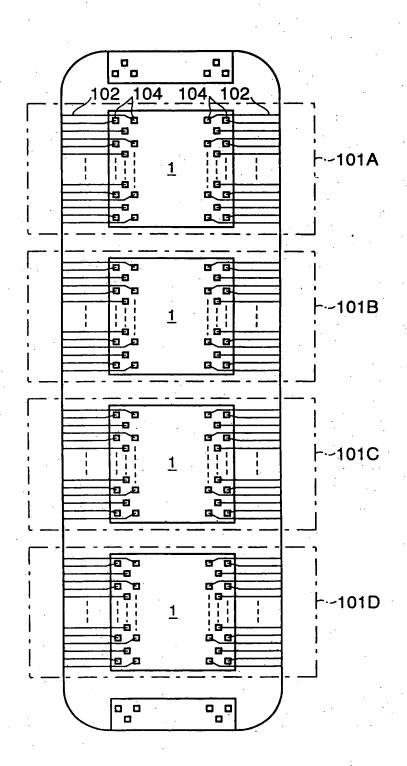


FIG. 28

Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 24 of 52

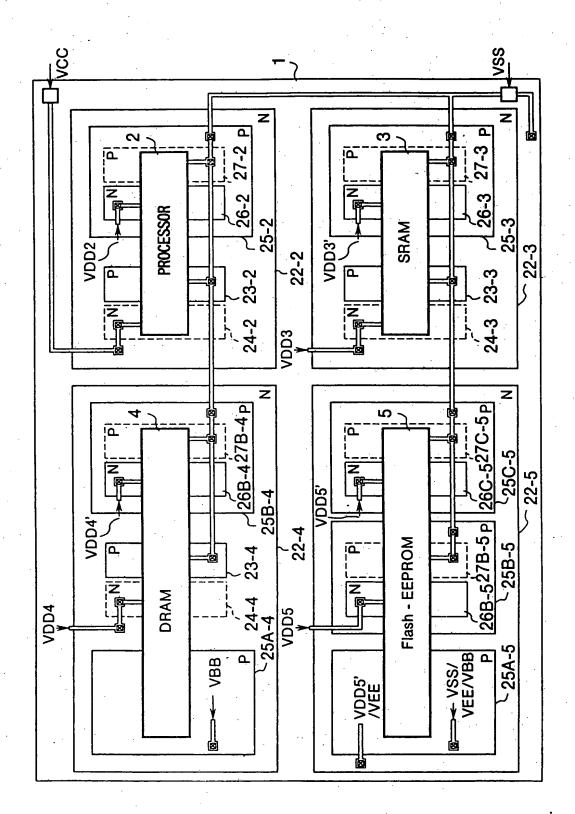


FIG. 29

Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 25 of 52

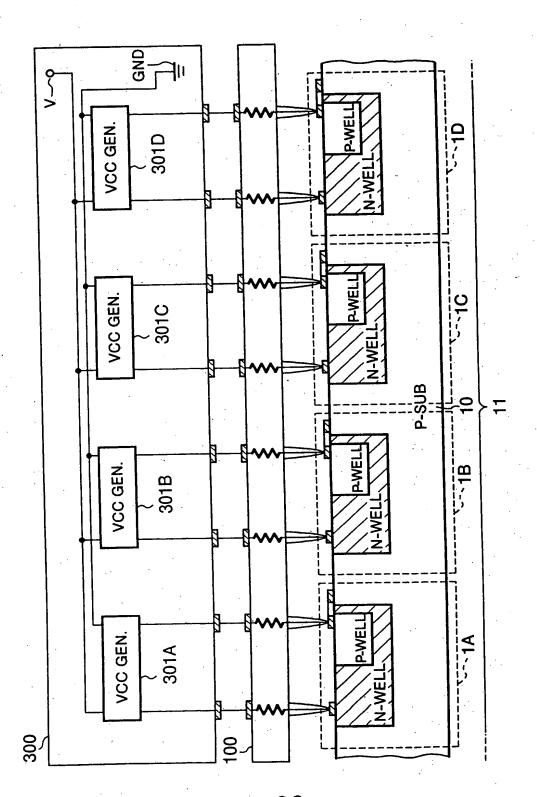
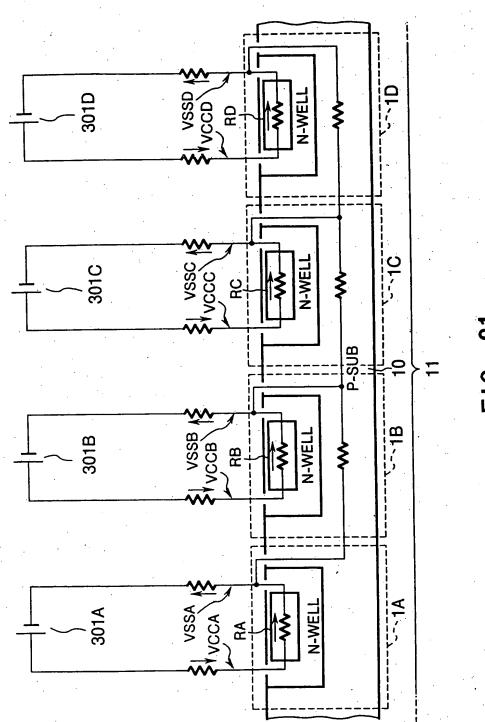


FIG. 30

Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 26 of 52



F16. 31

Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 27 of 52

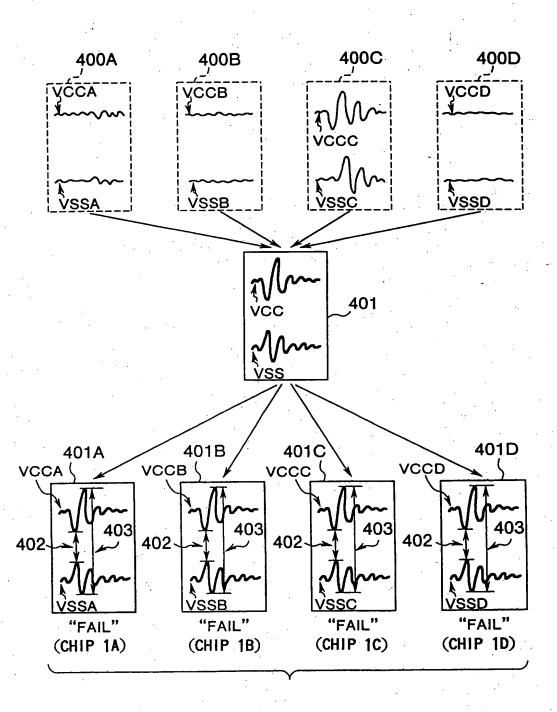
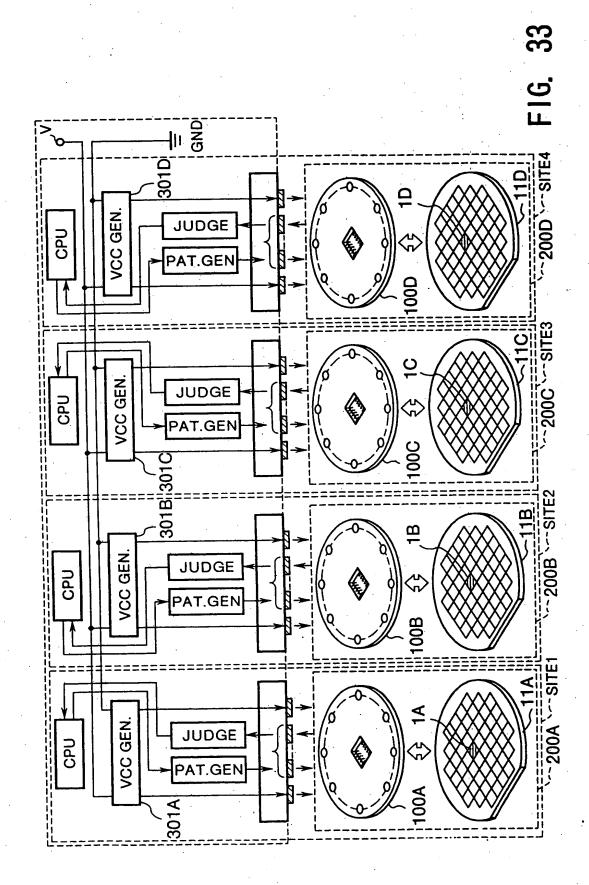
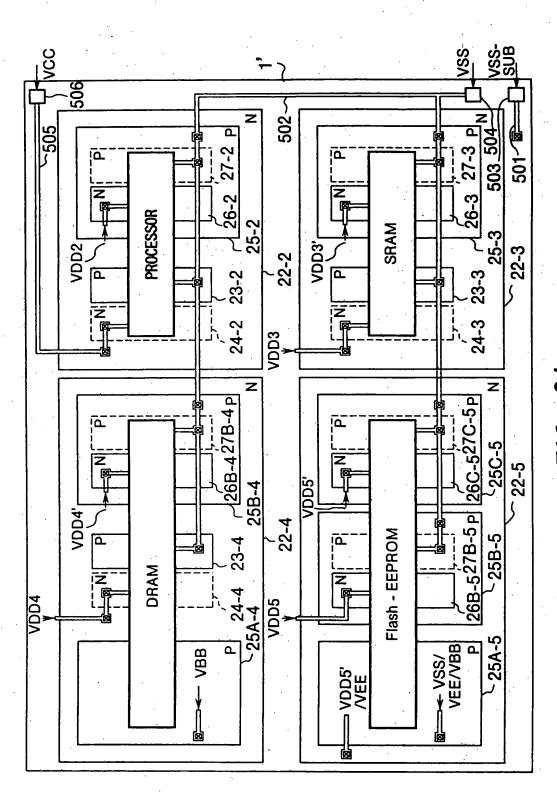


FIG. 32

Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 28 of 52

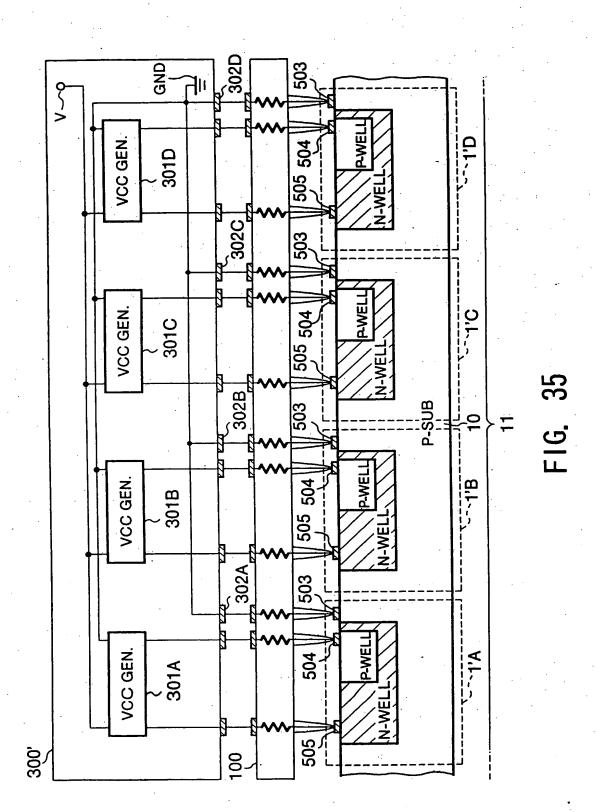


Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 29 of 52

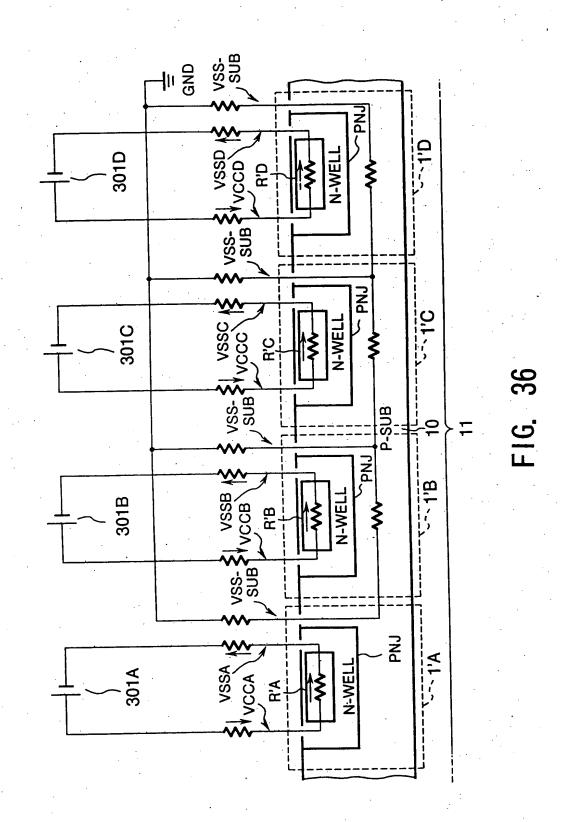


F16. 34

Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 30 of 52



Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 31 of 52



Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 32 of 52

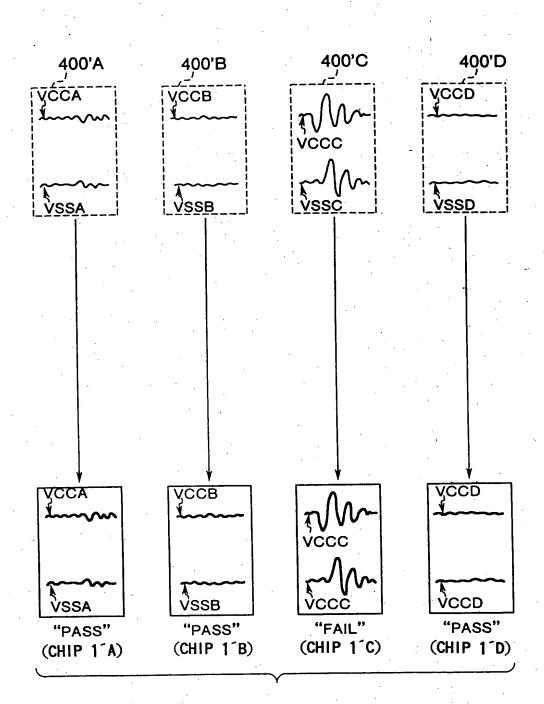


FIG. 37

Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 33 of 52

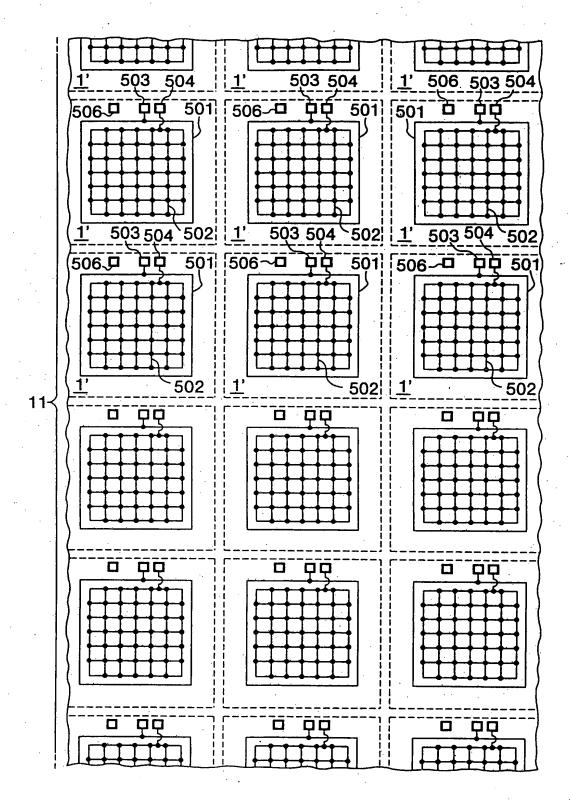


FIG. 38

Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 34 of 52

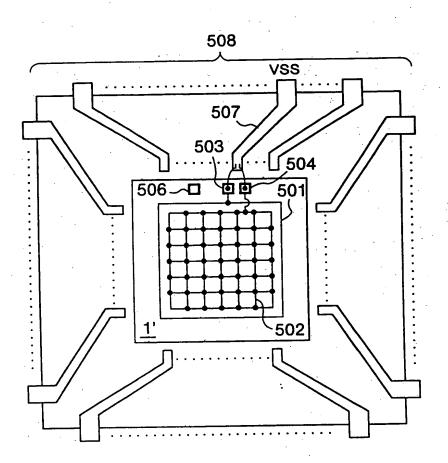
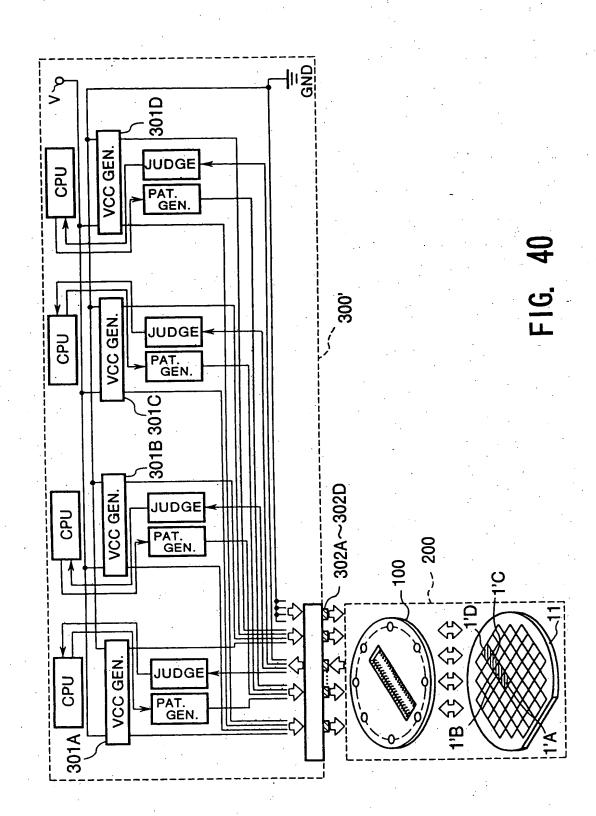
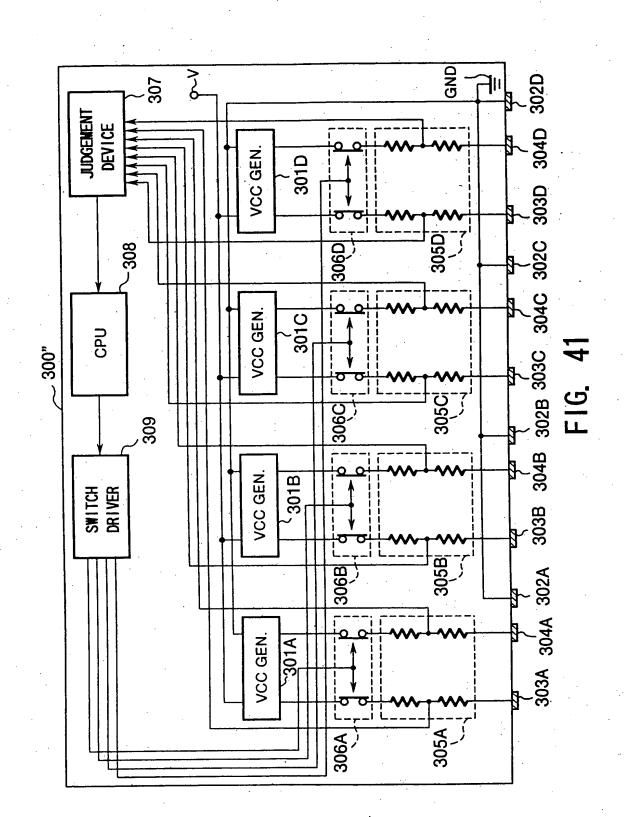


FIG. 39

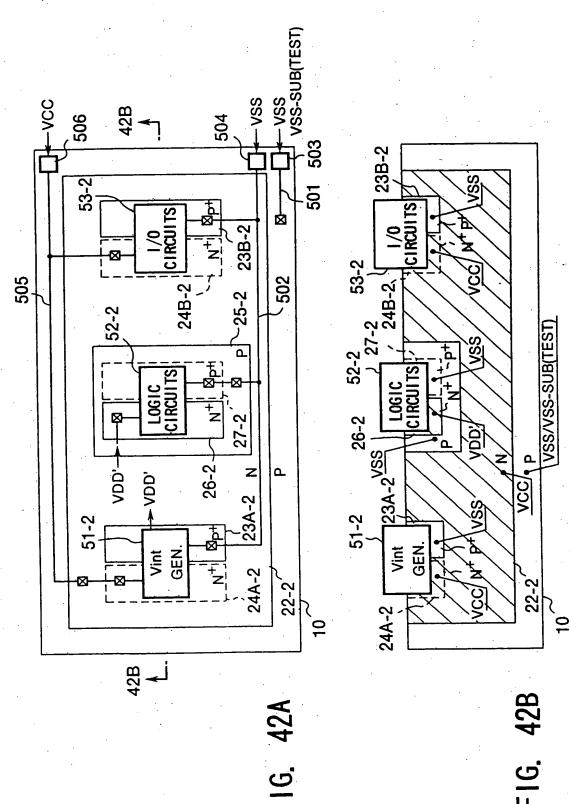
Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 35 of 52



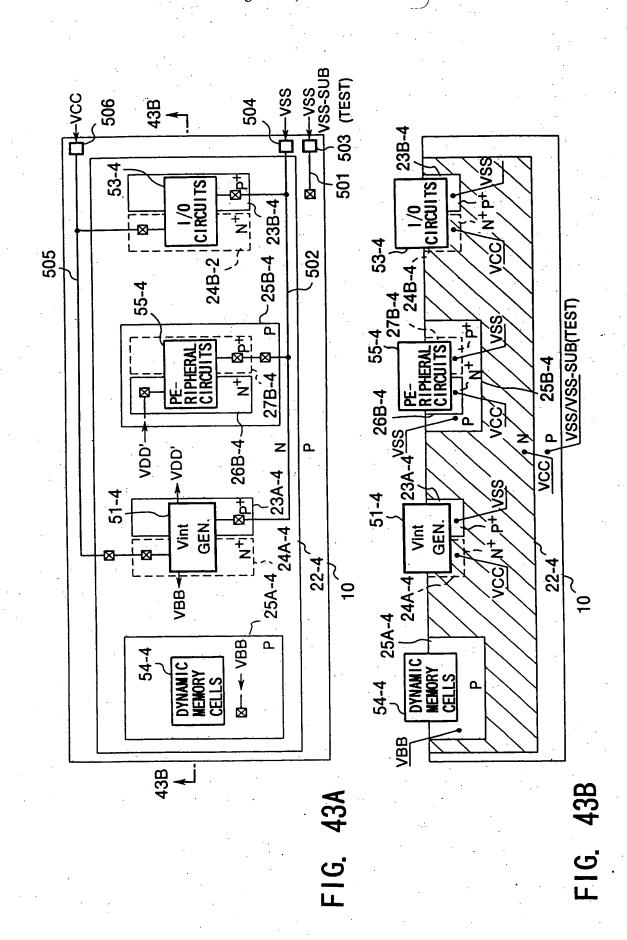
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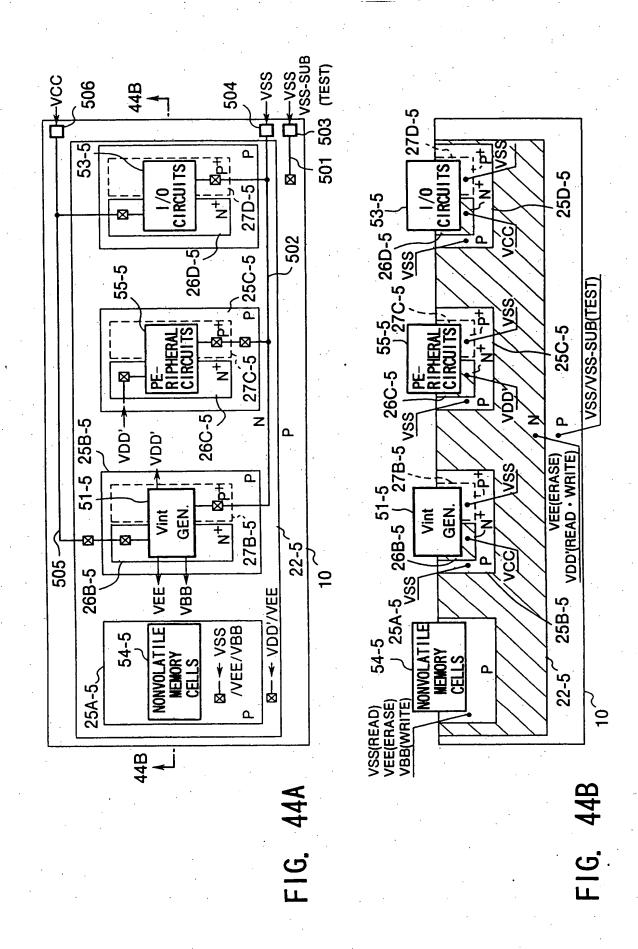
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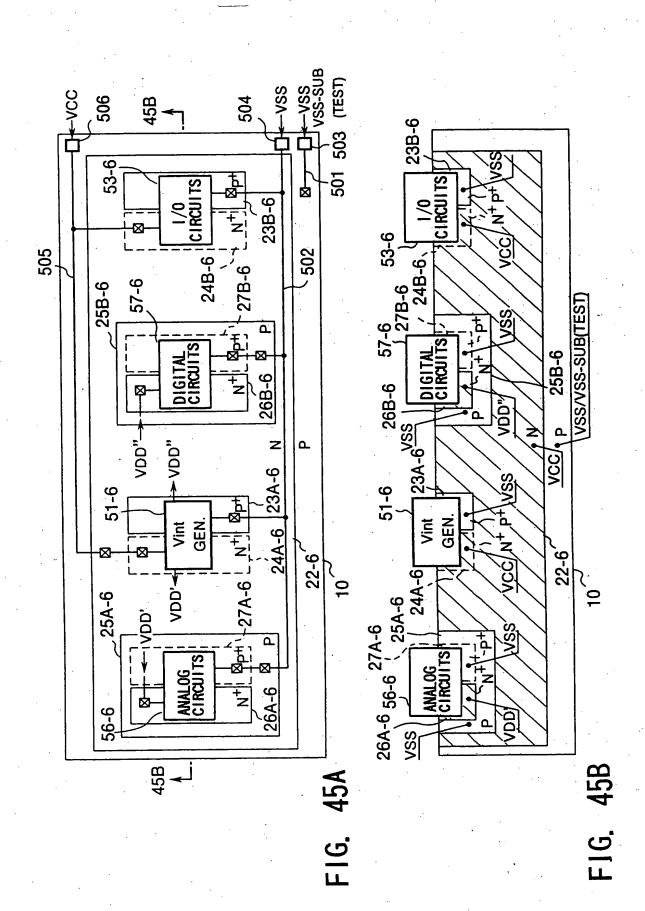
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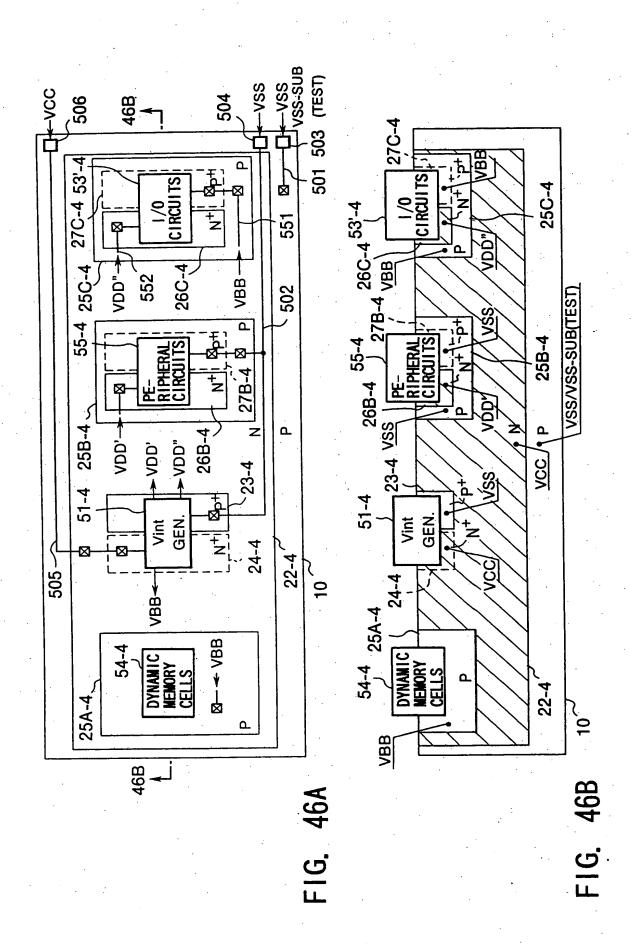
Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 39 of 52

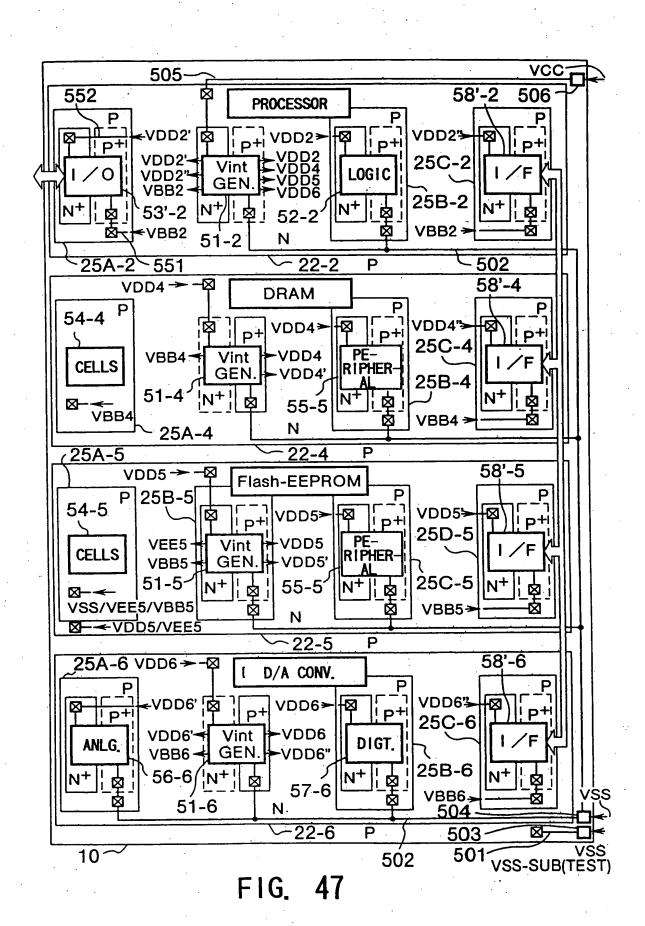


Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 40 of 52



Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 41 of 52





Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 43 of 52

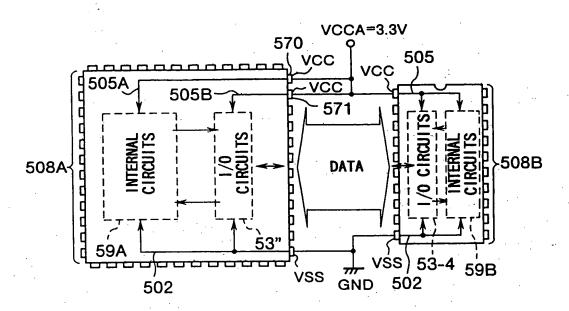


FIG. 48A

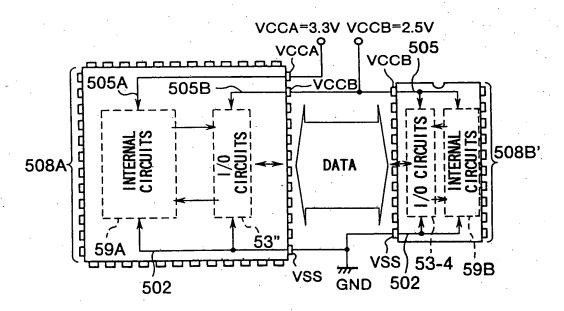


FIG. 48B

Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 44 of 52

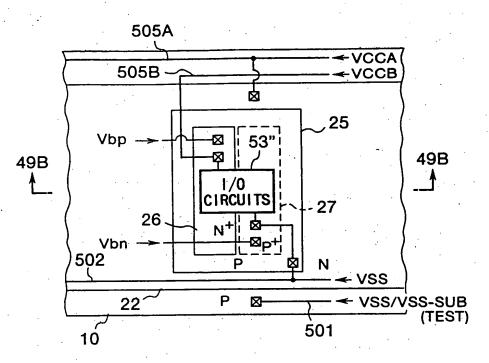


FIG. 49A

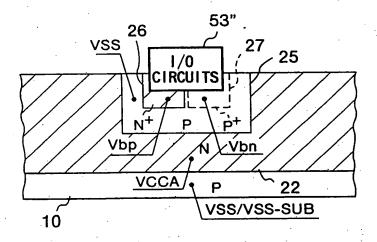


FIG. 49B

Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 45 of 52

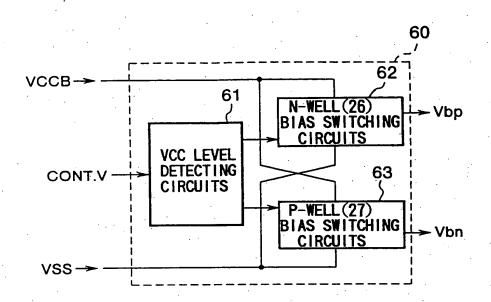


FIG. 50A

VCCA=3.3V VCCB=2.5V			VCCA = VCCB = 3.3V		
CONT.V	Vbp	Vbn	CONT.V	Vbp	Vbn
1	4.5V	-1.5V	0	3.3V (VCCB)	0V (VSS)

FIG. 50B

Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 46 of 52

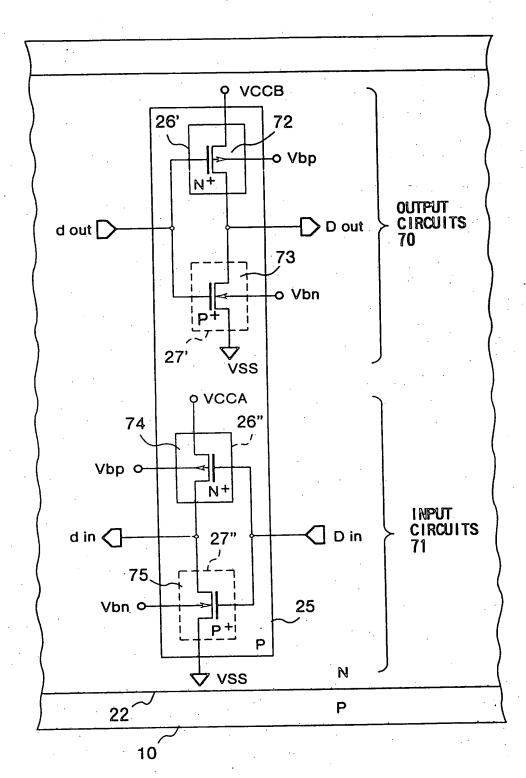
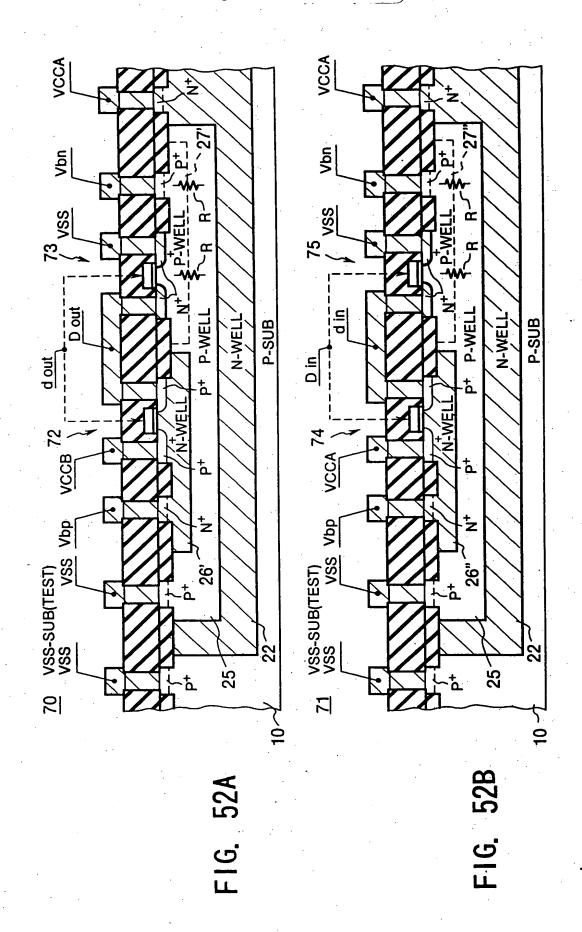
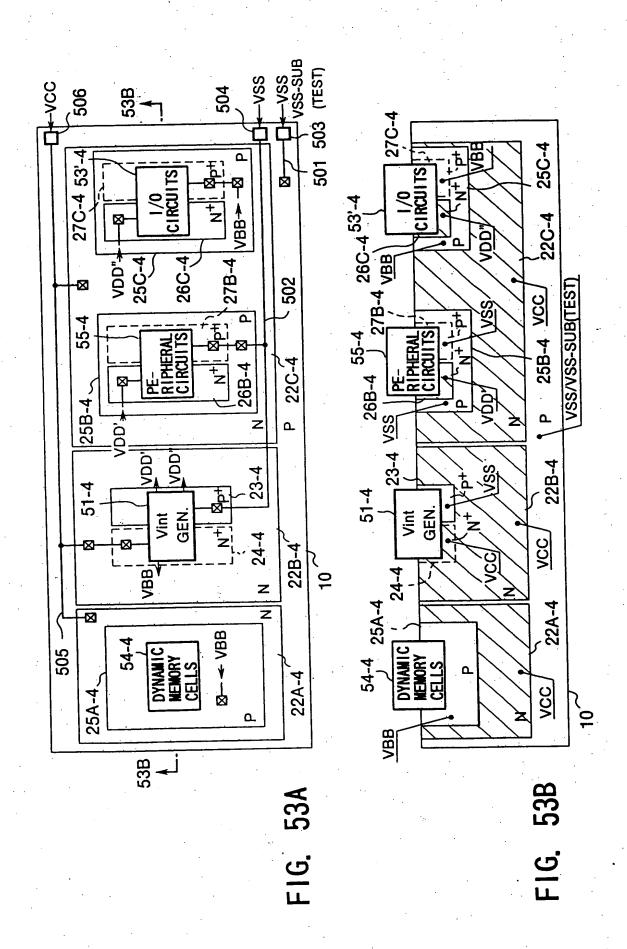


FIG. 51

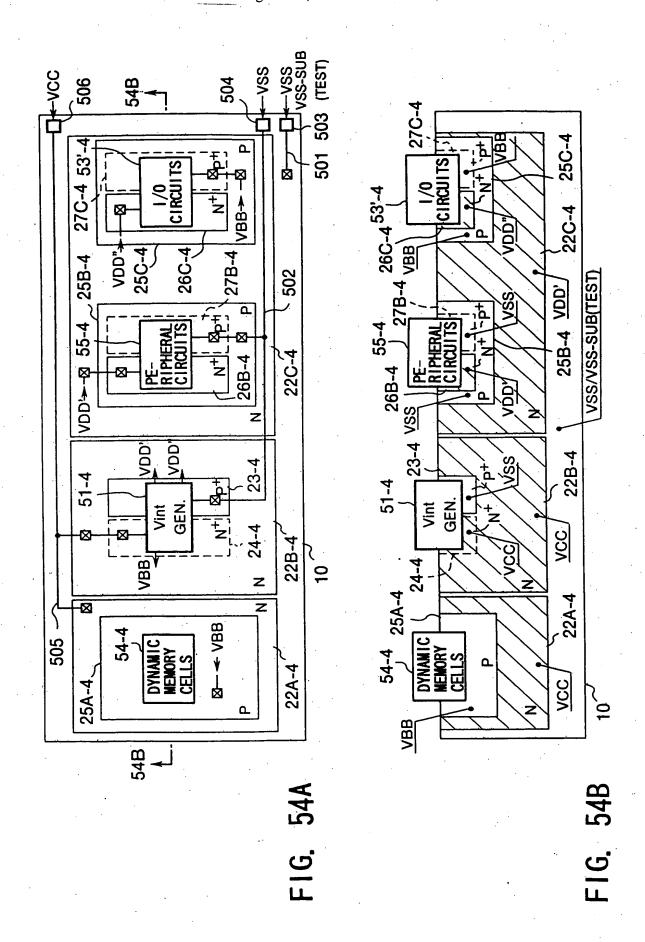
Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 47 of 52



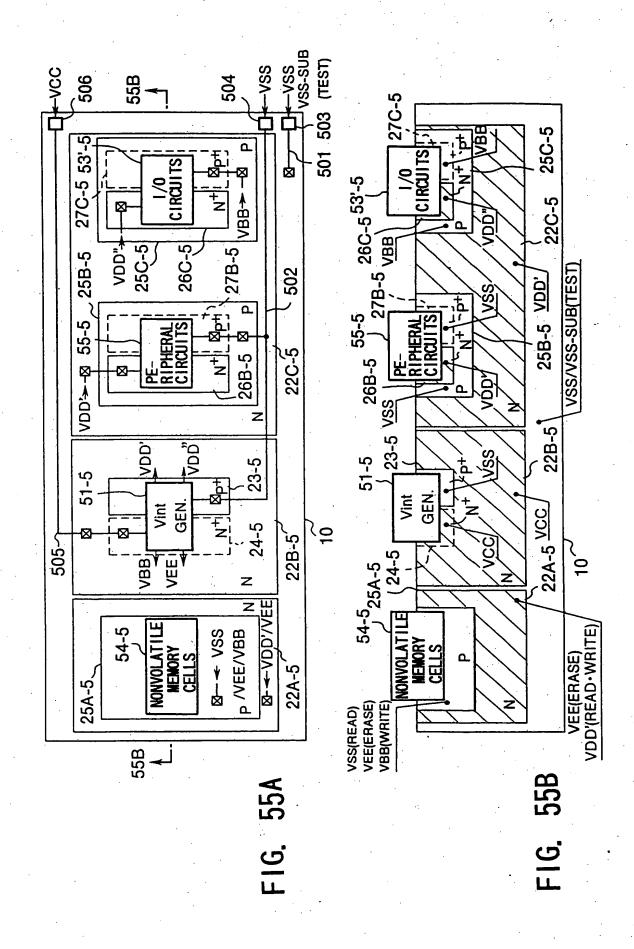
Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 48 of 52



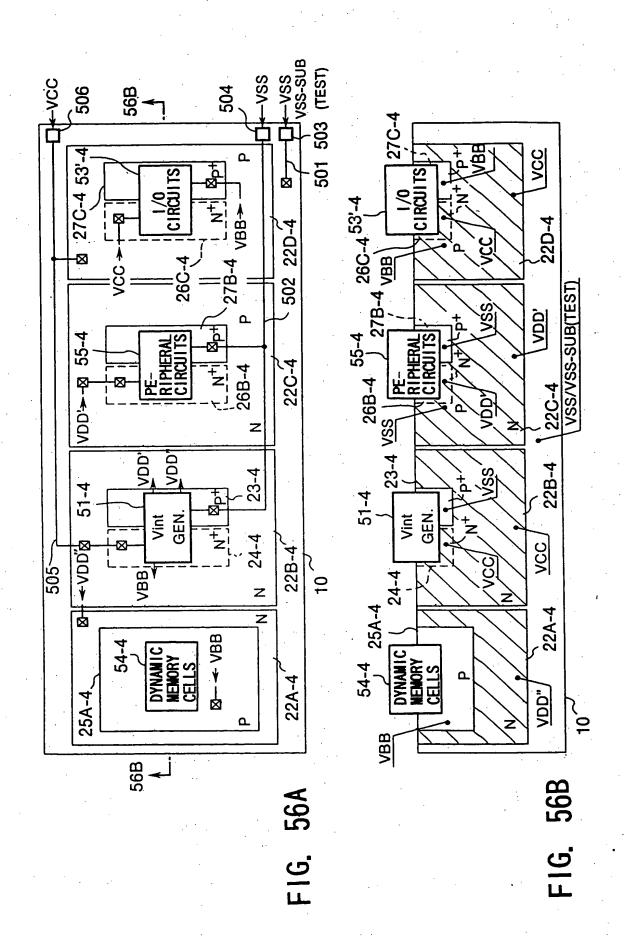
Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 49 of 52



Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 50 of 52



Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 51 of 52



Hogan & Hartson 81790.0312 Tomomi MOMOHARA Semiconductor Integrated Circuit... EV 325 215 385 US 52 Drawing Sheets; Sheet 52 of 52

